

Professional Publishing

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CCI 400
REVIEWED

TEXT TECH



SYSTEM REVIEW

The CCI 400 Front-End System

The logical conclusion for text entry is integration into a front-end typographic system. In this issue, Professional Publishing takes a look at a comprehensive package from Computer Composition International.

Review by Terry Ulick

Today's "text entry" systems have become a reality because typographic equipment can now accept information from independent devices. Typesetting is no longer a photomechanical process. The majority of typographic equipment currently being manufactured is computer based. The keystroke and coding information is captured much in the same way text is captured with a word processor or text entry system. Those codes and keystrokes will then drive a typesetting device.

This system has made it possible for information and text to come from sources other than the dedicated typesetting device. Systems to capture the text and typographic coding are termed "front-end systems." Text can be entered into a front-end system, or from remote text entry devices. For text entry to be possible, a front-end system must be there to read and encode the text from the text entry device.

Front-end systems for publishing are essential. If you do not have in-house typesetting, or have not looked at typesetting devices recently, it is important to understand that in terms of the typographic process, front-end systems are the main device that must be considered in selecting an in-house system or even a service. With a modern front-end system, text can be manipulated as never before.

Computer Composition International (CCI), headquartered in Chatsworth, California, is a producer of front-end systems designed for publishing.

Heart Of The Process

CCI offers front-end systems that form the heart of a text entry system. Remote text terminals and word processors can contain embedded commands, but only fed into a front-end system does that captured text take on typographic qualities.

To convert keystrokes to type, CCI has a large network of devices designed to handle the rigors of publishing. The core of the system is the CCI 400, which acts as the central processor and interface to an actual typesetter. Note that the typesetter itself is not part of this system. In the structure of front-end systems, it is common to use the best possible typesetter available. If locked into a dedicated typesetter, a front-end system could not offer expanded features and capabilities beyond today's technology. By having the front-end system independent of the actual typesetter, the front-end system is able to grow and be modified to take advantage of the latest in typesetter technology (such as the new laser typesetters or laser printers for galley and page proofs).

The CCI 400 is connected directly to two storage devices. The first is a hard disk, the second is a tape drive, used for backup of data and archival storage. For input of text, the CCI 400 can be driven by a variety of input devices. Most direct is an interactive video display terminal that allows text entry, typographic coding, and offers features such as previewing the hyphenation and justification, a

"pica pole" to obtain length of typeset text, kerning, automatic pi look-up, automatic fraction building, and table building. Text displayed on the video display terminals offers operator enhanced displays that will show boldface text to appear in an intensified video, pi characters to be viewed as the characters rather than the traditional coding, and in highlighted and underlined modes, as well as code suppression.

Keyboards and screens are modern and ergonomically designed for operator comfort. Commonly used typographic command keys are present as dedicated keys. In this way an operator need only use one key rather than a series of keystrokes for a desired function.

In addition to the standard text entry terminals, the CCI 400 can accept text from word processors, either directly or from remote locations via CCI's "TypeLink II" program, which is designed to accept text, as well as control characters, from a wide variety of input systems. The software can make full use of control characters which eliminate much recoding when entering the typesetting conversion process. The process involves the creation of a conversion table that can convert standard characters to ones usable by the CCI 400. Input can be from scanners, tape drives, word processors, computers, and other text generating devices.

The ability to accept text input from dedicated terminals, as well as remote terminals and devices, offers a fully func-



Basic configuration for text entry, featuring 400S terminal.



Operator Screen with hyphenated text.

tioning front-end system. While many systems offer text input from remote devices, the TypeLinkII program offers the needed table conversions to make the remote entry devices remote typographic devices as well. The most significant feature of TypeLinkII is that it is an interactive program, allowing a user to call the system from a remote location using a word processor, microcomputer, minicomputer or mainframe computer, and interact with the CCI 400. With this feature, the user can preview hyphenation and justification, obtain pica counts, and retrieve text from the system.

Additional input may come from remote devices such as an optical character recognition device to convert typeset copy into usable keystroke form, or a scanner which can scan logotype or graphic images that can be used within the system and can be output the same as type, integrated into the typeset page.

Previews

Once text has been entered and coded for typesetting, checked for hyphenation and justification as well as kerning, the system can be equipped with two preview devices that are well suited for publication use.

The first is "PageView," which is a

graphic display terminal that allows a preview of the type as it was coded. Type is displayed on a large VDT as black type on a white background. If you have coded the text to be paginated, that is how it will appear. If the text was set without pagination, it will be displayed as galley type.

The second preview system, and one that is well suited for publication use, is "ActiView." The difference between ActiView and PageView is that the type represented on the ActiView screen can be modified interactively. A split screen system is used, dividing the 19" display into two sections: One for preview display, the second for editing. The ActiView comes with its own 400E keyboard, which is the same used with the 400 system. When text or pages are viewed, the operator may edit the text, change type fonts, sizes, text and measure. The resulting changes are displayed interactively on the display portion of the screen.

With both PageView and ActiView, type is displayed crisply on a large 19" (diagonally) monitor. Type and leading are represented truly, 12 point type appears as 12 point type. Fonts are representational, however. A serif standard or bold is used to represent serif faces; a sans serif face is used to repre-

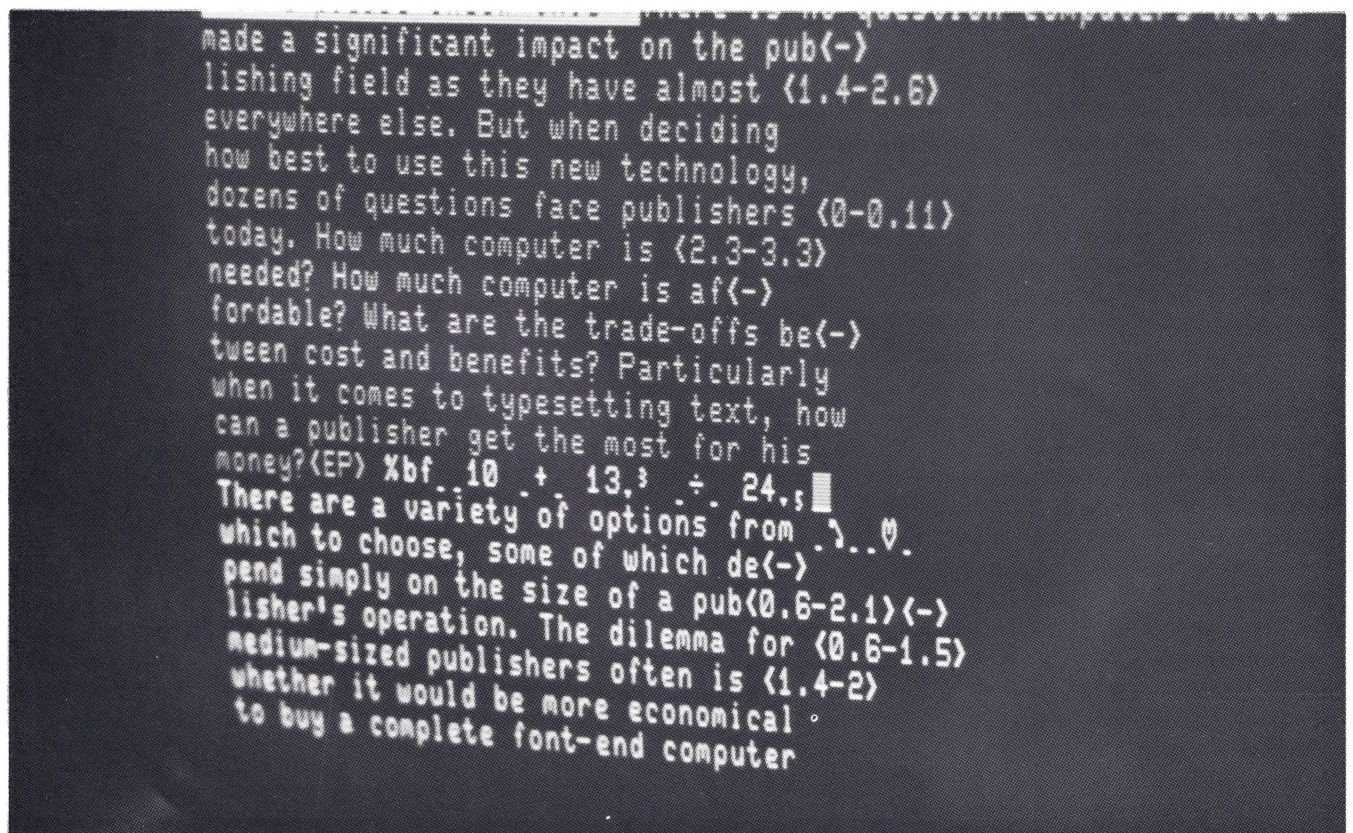
sent sans serif fonts. While one face may be used to represent a variety of fonts, the spacing and kerning are accurately displayed.

A further extension of the preview terminals are graphics printers and laser printers that allow hard copy of the type prior to typesetting.

The Graphic Printer offered by CCI is a bit-mapped device that reads the screen and prints a duplicate of the screen. This offers a good preview of the type, and can be useful to record the editing of a page. Each new edit can be printed, keeping a history of a page that is being edited.

Interfaces to laser printers are also part of the preview process, and in many instances can be used as the final typeset product. More and more publishers are creating small-run periodicals and documents such as reprints using the laser printer as the printing device.

For typeset output, the CCI 400 can support up to eight typesetters, in any combination. A digital and a mechanical typesetter can be used at the same time. An appropriate driver is used for the typesetter. An advantage of a front-end system is that the typesetter can be internal, or in many cases, can be separate from the operation. If you choose to purchase a typesetter, it can be rented out for use by another company with



Detail of pi characters (heart, phone).

their own front-end system.

New System

In addition to the CCI 400 system, CCI has added the CX 1000 system. Designed as an entry-level system, the system offers sophisticated features at a low cost.

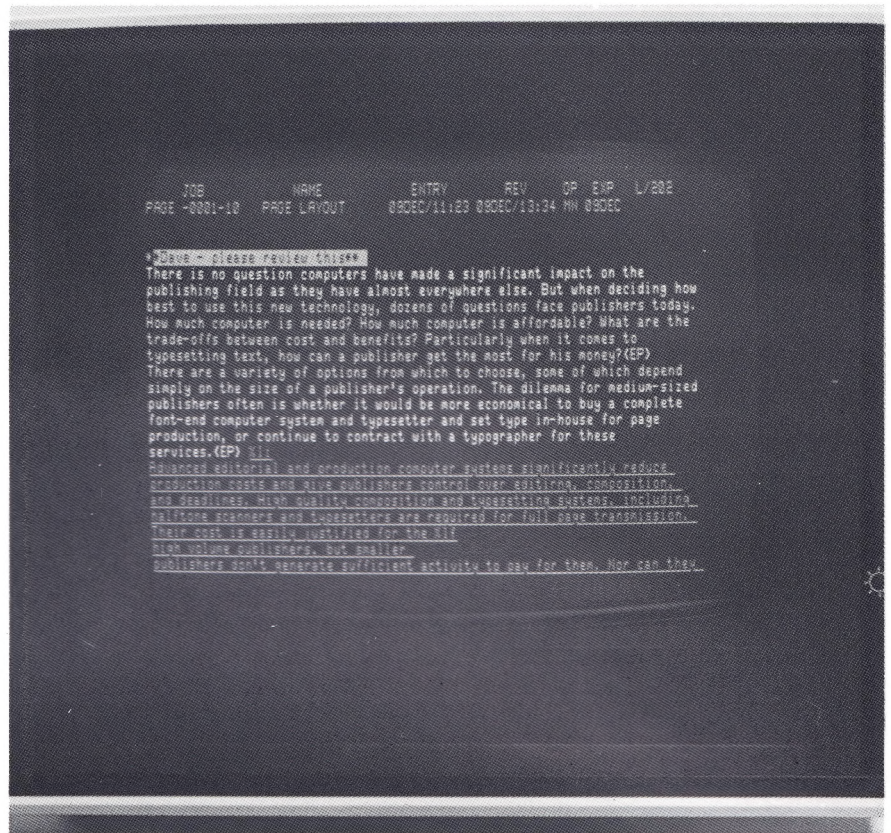
This system is self-supporting, although it can be connected to a CCI 400 system.

The system can support more than one video display terminal, as well as PageView and ActiView. Text can be brought into the system via modem and TypeLinkII software. A typical system contains the central processor, terminal, 10 mb (megabyte) Winchester disk drive, 20mb streaming tape drive, diagnostic package and desk enclosure.

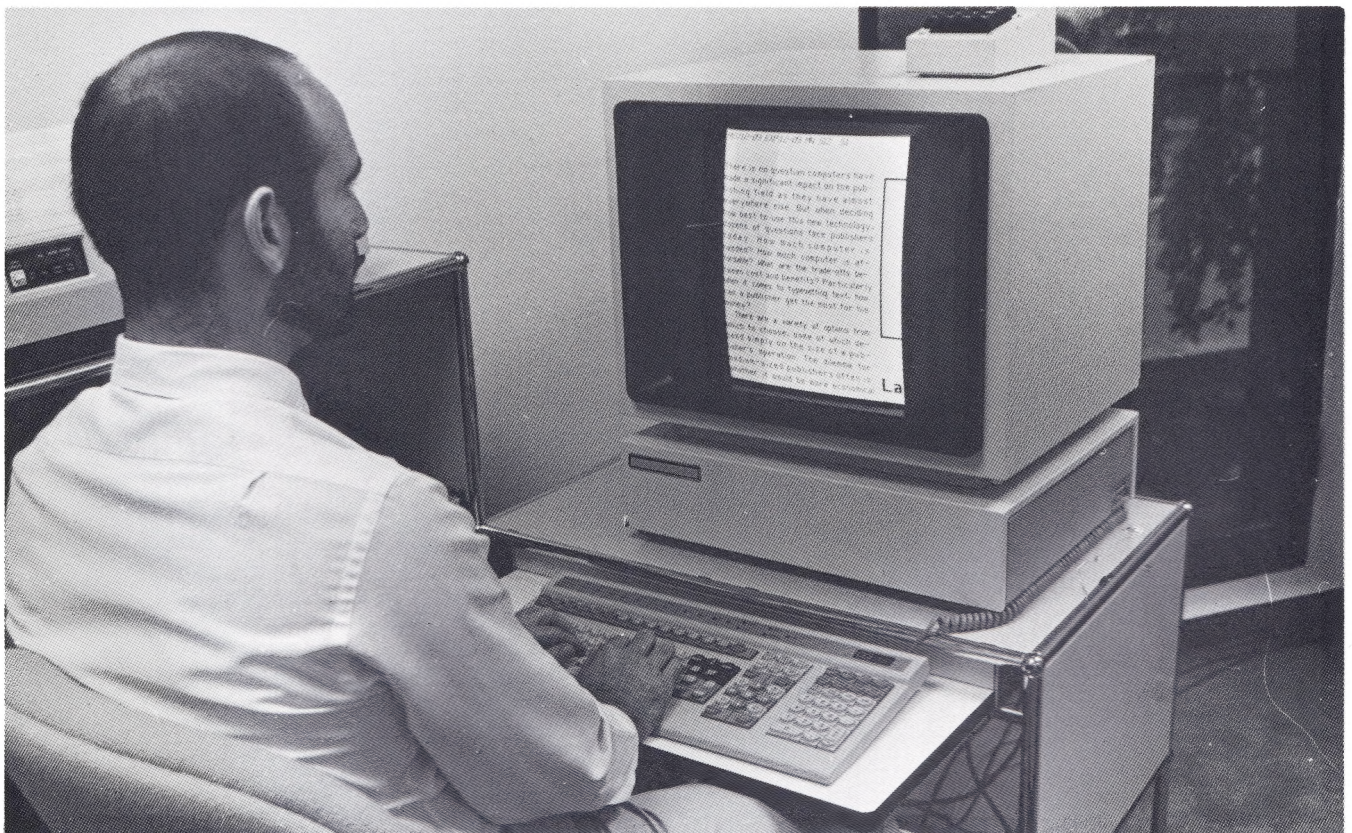
Twenty-three standard composition and typographic features are available with the CX 1000 such as flashback hyphenation and justification, pica count, magazine pagination program, kerning, automatic pi look-up, spot h&j, automatic fraction building, English dictionary program, and the ability to electronically modify typefaces.

System Overview

The features and options listed above



Screen showing reverse video, underlining, and highlighted type.



Operator at PageView terminal.



Ergonomically designed keyboard.



Ergonomically designed 400E terminal screen and keyboard.

represent CCI's viewpoint on front-end systems. In visiting CCI's headquarters and talking to the many individuals involved in creating and refining the system, you start to see that CCI has created a front-end system with an open architecture.

The company has made extensive use of new technologies. By not dedicating the system to any particular hardware or typesetter, they have left room for system expansion. This approach, for example, is one reason why the IBM PC has been so successful. By avoiding proprietary systems, the software is free to take advantage of the latest technology.

With the introduction of the CX 1000 series, CCI has configurations from one or two operator systems, up to large-scale systems with 32 terminals, and various input devices. This flexibility allows a publisher to start small, and as the need arises, expand the system to meet current needs.

Of importance to publishers is that CCI has its origins in the editorial approach to typesetting. The company has had installations at newspapers as well as magazines. By working with publishers and publishing operations, the system offers features that make sense in publishing environments.

CCI has assembled equipment that is easy to use. A user-level approach is built into the system. At one terminal, someone who is good at entering text can center on that activity. At another terminal, that text can be coded. An individual good at both functions can do both at the same time. Once text has been coded, it can be previewed and interactively modified through the ActiView terminal. In this way, a system can be staffed by people who can specialize. Writers can write. Type people can code. Art directors can make-up pages. Editors can preview, edit, and approve.

All of these activities can be accomplished through the system CCI offers. Having used the system, I found it well designed. The screens are easy to use and understand. Keyboards were ergonomically designed. Text entry screens, while not preview terminals, make attempts by highlighting, underlining and enhancing, to visually support the typographic coding.

The operating system (that controls all the activities of the system) is not overpowering. An operator can get right to work, not go through a maze of instructions. If desired, security can be built into the system. In this way, various users can be given passwords that will allow them to perform specified functions on specified files.

CCI is one of the handful of companies that is addressing the needs of publishing. Too many times, publishers will purchase systems designed for typesetting shops. Editors are expected to edit text on typesetting terminals. This has turned many publishers off to the idea of in-house typesetting. Using a system such as the CCI 400, you quickly realize that while it is still a typesetting system, intended to ultimately set type, it is also a system that can allow text entry on a level that makes sense for editors and artists. Text can come from a variety of input sources, such as portable computers and word processors. An editor in the field can use a portable terminal, call the CCI 400 via a modem and TypeLinkII, and write a story interactively, getting article length, h&j, and even widow/orphan responses so that editing can take place right on the remote computer. The editor does not have to transmit the story, have it sent back, edit, transmit. In production terms, the editor is not only editing, he is editing to specifications that will match production requirements.

Conclusions

While this issue has been devoted to text entry, it is impossible to separate text entry from front-end systems that will

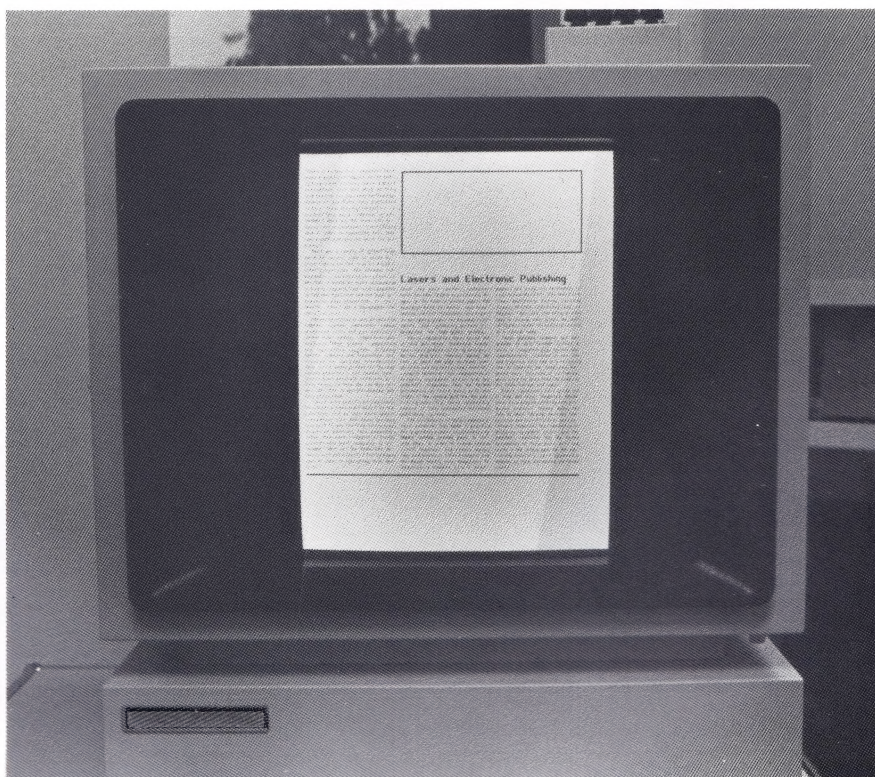
convert that text into typesetting. The CCI 400 and the CX 1000 are the types of devices that have changed the way magazines are made. By understanding how front-end systems accept text and convert it into type, the concept of text entry makes sense.

The days when editors type out stories on typewriters and send them to typesetters who rekeyboard that text are nearing an end. The main reason is that it is far less costly to use text entry and front-end systems. In the not too distant future, having somebody rekeyboard an author's or editor's type will be a luxury that no publisher will be able to afford. The price of text entry devices and front-end systems will be far less than sending type out to a typesetting shop or to a printer.

For that day, examine front-end systems such as CCI's. They are not luxury items, they are becoming the sensible way to convert your staff's text into type.

For More Information...

For more information on the CCI series of typographic front-end systems, contact: Jerry Uden, Computer Composition International, 19736 Dearborn Street, Chatsworth, California 91311, phone (818) 701-6033.



Detail of PageView Screen.

Why do most companies prefer CCI?

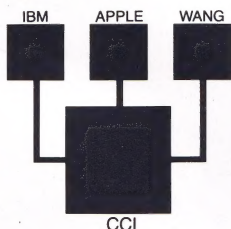
It's Simple.



Nobody has a computer typesetting system that's simpler to use than CCI.

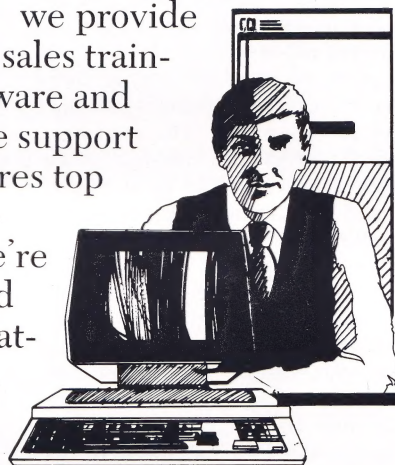
Simple because CCI is menu driven, has programs that automatically perform complex operations and simple commands that make sense. CCI has the system that can be tailored to your operation. We address the problems critical to most applications. It's easy for us because we've been doing it for 15 years.

We have programs for commercial and financial tabulation; programs that paginate anything from a magazine to a technical manual, with integration of both text and graphics; we're the only company that offers you a remote editing workstation that's not only IBM PC[®] compatible, but also has its own 256K of storage, and can hold a 2-way conversation with our CCI system. Our ActiView system, a high-resolution input, editing, and display device that shows you an accu-



rate representation of different fonts and point sizes, and has its very own mouse.

We're CCI. We sell systems that work. And we provide the after sales training, software and hardware support that insures top performance. We're dedicated to integrating the newest, proven technology. It's that simple.



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 This was set on a CCI system at Skil-Set Typographers in Los Angeles.